

## LIST OF CONTENTS

### NUMBER 1-5

<b>A. K. Noor</b>	1	Computational structures technology: leap frogging into the twenty-first century
<b>P. Saint-Georges, G. Warzee, Y. Notay and R. Beauwens</b>	33	Problem-dependent preconditioners for iterative solvers in FE elastostatics
<b>P. Ladevèze and N. Moës</b>	45	Adaptive control for finite element analysis in plasticity
<b>H. Cramer, M. Rudolph, G. Steinl and W. Wunderlich</b>	61	A hierarchical adaptive finite element strategy for elastic-plastic problems
<b>C. Chinosi and C. Lovadina</b>	73	Remarks on partial selective reduced integration method for Reissner-Mindlin plate problem
<b>N.-E. Wiberg, R. Bausys and P. Hager</b>	79	Improved eigenfrequencies and eigenmodes in free vibration analysis
<b>J. Aalto and M. Perälä</b>	91	Built-in field equations for patch recovery procedures using weighted residuals
<b>J. Aalto and M. Äman</b>	119	Polynomial representations for patch recovery procedures
<b>A. Lorenzana and J. A. Garrido</b>	147	Analysis of the elastic-plastic problem involving finite plastic strain using the boundary element method
<b>V. Sladek and J. Sladek</b>	161	Modified Overhauser elements for approximation of boundary densities in regularized BEM formulations
<b>H. J. Holl, A. K. Belyaev and H. Irschik</b>	177	Simulation of the Duffing-oscillator with time-varying mass by a BEM in time
<b>D. O'Dwyer</b>	187	Funicular analysis of masonry vaults
<b>M. Utku</b>	199	An improved transformation for universal serendipity elements
<b>J. A. Teixeira de Freitas and C. Cismaşiu</b>	207	Numerical implementation of hybrid-Trefftz displacement elements
<b>Ph. Bouillard</b>	227	Admissible fields and error estimation for acoustic FEA with low wavenumbers
<b>C.-C. Lin and H.-N. Huang</b>	239	Vibration control of beam-plates with bonded piezoelectric sensors and actuators

<b>L. Champaney, J. Y. Cognard and P. Ladèveze</b>	249	Modular analysis of assemblages of three-dimensional structures with unilateral contact conditions
<b>B. Burgardt and P. Cartraud</b>	267	Continuum modeling of beamlike lattice trusses using averaging methods
<b>H. Alaylioglu and A. Alaylioglu</b>	281	Finite element and experimental bases of a practical bridge management and maintenance system
<b>E. J. O'Brien and D. L. Keogh</b>	295	A discussion on neutral axis location in bridge deck cantilevers
<b>B. M. Lehane, D. L. Keogh and E. J. O'Brien</b>	303	Simplified elastic model for restraining effects of backfill soil on integral bridges
<b>J. W. Bull and C. H. Woodford</b>	315	The effects of camouflets on subgrade surface support
<b>J. S. Kuang and C. K. Chau</b>	327	Dynamic behaviour of stiffened coupled shear walls with flexible bases
<b>J. W. Bull and C. H. Woodford</b>	341	The numerical modelling of crater repairs in airfield runways
<b>M. B. Fuchs, M. Paley and E. Miroshny</b>	355	The Aboudi micromechanical model for topology design of structures
<b>S. Manoharan and S. Shanmuganathan</b>	363	A comparison of search mechanisms for structural optimization
<b>E. S. Kameshki and S. Syngellakis</b>	373	Inelastic stability of rectangular frames by transfer matrices
<b>A. V. Singh</b>	385	Free vibration analysis of deep doubly curved sandwich panels
<b>J. M. Bourinet and D. Le Houédec</b>	395	A dynamic stiffness analysis of damped tubes filled with granular materials
<b>J. S. Moita, C. M. M. Soares and C. A. M. Soares</b>	407	Buckling and dynamic behaviour of laminated composite structures using a discrete higher-order displacement model
<b>B. Jurkiewicz, J.-F. Destrebecq and A. Vergne</b>	425	Incremental analysis of time-dependent effects in composite structures
<b>Q.-L. Zhang and U. Peil</b>	437	Dynamic behaviours of cables in parametrically unstable zones

- |  |     |   |
|--|-----|---|
| <b>G. D. Gounaris and<br/>N. K. Anifantis</b>                                  | 445 | Structural damping determination by finite element approach                             |
| <b>C. T. F. Ross, M. W. Taylor,<br/>W. D. Richards and<br/>A. P. F. Little</b> | 453 | Vibration of varying thickness circular cylinders under uniform external water pressure |
| <b>P. Venini and C. Mariani</b>  | 465 | Reliability as a measure of active control effectiveness                                |
| <b>S. Glodež, Z. Ren and<br/>J. Flašker</b>                                    | 475 | Surface fatigue of gear teeth flanks  |
| <b>A. Mokhtar-zadeh and<br/>A. Kaveh</b>                                       | 485 | Optimal plastic analysis and design of frames: graph theoretical methods                |
| <b>A. Kaveh and<br/>A. Mokhtar-zadeh</b>                                       | 497 | Bandwidth optimization for rectangular matrices   |
| <b>A. Kaveh and G. R. Roosta</b>   | 511 | Cycle bases of graphs for sparse flexibility matrices                                   |
| <b>B. H. V. Topping and<br/>B. Cheng</b>                                       | 519 | Parallel and distributed adaptive quadrilateral mesh generation                         |
| <b>B. Kiss and A. Krebsz</b>   | 537 | On the Schur component preconditioners  |
| <b>J. P. B. Leite and<br/>B. H. V. Topping</b>                                 | 545 | Parallel simulated annealing for structural optimization                                |

## I Calendar

## NUMBER 6

- |   |     |   |
|---|-----|---|
| <b>G.-Q. Li, K.-C. Hao, Y. Lu and<br/>S.-W. Chen</b>                            | 565 | A flexibility approach for damage identification of cantilever-type structures with bending and shear deformation |
| <b>J. Ch. Ermopoulos</b>  | 573 | Buckling length of non-uniform members under stepped axial loads  |
| <b>P. Fernandes, J. M. Guedes<br/>and H. Rodrigues</b>                          | 583 | Topology optimization of three-dimensional linear elastic structures with a constraint on "perimeter"             |
| <b>L. P. Li, G. Cederbaum and<br/>K. Schulgasser</b>                            | 595 | A finite element model for poroelastic beams with axial diffusion   |
| <b>You-qun Zhao,<br/>Zhong-sheng Liu,<br/>Su-huan Chen and<br/>Gui-yu Zhang</b> | 609 | An accurate modal truncation method for eigenvector derivatives   |
| <b>P. Boisse, S. Perrin,<br/>G. Coffignal and K. Hadjeb</b>                     | 615 | Error estimation through the constitutive relation for Reissner-Mindlin plate bending finite elements             |

**S. Tizzi**

**629 Free frequencies and modal shapes of cylindrical vibrating composite structures**

**I Calendar**

